CLAIMS

What is Claimed is:

1. A method of assembling an integrated circuit assembly, the method comprising:

providing a substrate having electrical terminals on a first side of the substrate and a bondpad on a second side of the substrate opposing the first side, the bondpad electrically coupled to at least one of the terminals;

mounting an integrated circuit chip to the first side of the substrate, the integrated circuit component having a lead adapted to be wire-bonded to the terminal; and

removing oxidation from the bondpad, the bondpad adapted to be metallurgically bonded to a trace on a printed circuit board.

2. A method according to claim 1, wherein removing oxidation comprises etching oxidation from the bondpad using an etchant.

3. A method according to claim 2, further comprising rinsing the etchant with deionized water prior to coating the bondpad.

4. A method according to claim 2, wherein the bondpad comprises copper and the etchant comprises potassium peroxymonosulfate.

5. A method according to claim 4, wherein the etchant comprises from about 80 grams to about 120 grams of potassium peroxymonosulfate per liter of water.

6. A method according to claim 5, wherein the etchant further comprises from about 1% to about 3% sulfuric acid per volume.

7. A method according to claim 6, wherein removing oxidation further comprises removing oxidation at about room temperature.

8. A method according to claim 1, further comprising coating the bondpad with an anti-tarnish solution after removing oxidation.

9. A method according to claim 8, wherein metallurgically bonding further comprises removing the anti-tarnish coating from the bondpad with flux.

10. A method according to claim 8, wherein the anti-tarnish solution comprises methyl alcohol, benzotriazole, a nonionic surfactant, and water.

11. A method according to claim 10, wherein the anti-tarnish solution comprises about 5% methyl alcohol, about 1% benzotriazole, about 3% nonionic surfactant, and about 91% water.

12. A method according to claim 11, wherein the anti-tarnish solution further comprises from about 1% to about 2.5% sulfuric acid per volume.

13. A method according to claim 12, wherein coating the bondpad further comprises coating the bondpad with an anti-tarnish solution in a temperature of about 60°C.

14. A method according to claim 1, wherein metallurgically bonding comprises metallurgically bonding the bondpad to the trace using a solder ball.

15. A method according to claim 1, further comprising encapsulating the integrated circuit chip prior to removing oxidation.

16. An integrated circuit assembly, comprising:

a substrate having electrical terminals on a first side thereof;

a bondpad on a second side of the substrate opposing the first side, the bondpad electrically coupled to at least one of the terminals;

an integrated circuit chip mounted to the first side of the substrate, the integrated circuit chip having lead adapted to be wire-bonded to the terminal; and

a solder joint metallurgically bonded to the bondpad and adapted to metallurgically bond the bondpad to a trace on a printed circuit board.

17. An assembly according to claim 16, wherein the surface of the bondpad is an etched surface, the etched surface etched with etchant.

18. An assembly according to claim 17, wherein the bondpad is a copper bondpad, and wherein the etchant comprises potassium peroxymonosulfate.

19. An assembly according to claim 18, wherein the etchant comprises from about 80 grams to about 120 grams of potassium peroxymonosulfate per liter of water and from about 1% to about 3% sulfuric acid per volume.

20. An assembly according to claim 16, wherein the integrated circuit chip is encapsulated.